

Cleaning for Healthy, High Performance Schools



THE  ASHKIN GROUP

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**“Never doubt that a small
group of thoughtful, committed
citizens can change the world.**

**In fact, it’s the only thing that
ever has.”**

Margaret Mead



Overview

- **The Value of Cleaning**
- **Three Studies**
- **Implementation Strategies**
- **Green Cleaning's Top 10 Opportunities**



Impacts on Health

■ Extract contaminants

■ Particulates

- Dirt
- Pesticides
- Lead

■ Moisture

- Mold

■ Food sources

- Pest control

■ Problems linked to cleaning

■ VOCs

■ Residues

■ Poisonous

■ Reactive

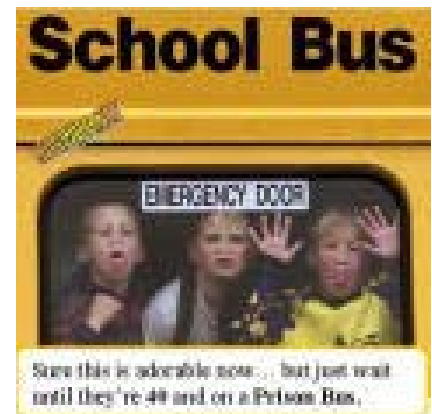
■ Flammable

■ PBT's

■ Environmental Impacts

Human Impacts

- **3 MILLION Janitors**
 - Higher numbers due to turnover
 - Workman's compensation
- **Exposures to building occupants**
 - Health and productivity impacts
 - Litigation and liability
- **Sensitive Populations**
 - Children
 - Elderly
 - Health conditions



Environmental Impacts

- **5 BILLION pounds of chemicals**
 - 50 BILLION (manufacturing)
- **4.5 BILLION pounds of paper**
 - Chlorine bleached – dioxins, mercury
 - No recycled content – 25 to 50 MILLION trees
- **Plastic lines, Equipment, Tools, Mats.....**
 - 250 MILLION pounds of vacuums – 6,000 semis
 - 36 BILLION plastic trash bags





Contaminant Reduction Frank Graham Child Center

	Decline
Airborne Dust	52%
Total VOCs	49%
Total Bacteria	40%
Total Fungi	61%



Health Impacts

Assn for Children with Downs Syn

	Decline
Total Illnesses	24%
Number of Doctor Visits	34%
Courses of Antibiotics	24%
Days Absent	46%



Charles Young Elementary School: Behaviors and Attitudes

	Before Restoration 1996	Post Restoration 2001
Student Attendance	89%	93%
Student Attitude	Somewhat frightful and apprehensive	Happy, energetic, and optimistic
Teacher Attitude	Frustrated to apathetic	Very positive, proactive, and optimistic
Teacher Retention	Normal to low retention and retirement	Very high retention, few retirements
Student health complaints	Frequent	Infrequent-Normal Very much reduced



Charles Young Elementary School: Standard Test Results

	Before Restoration 1996	Post Restoration 2000
Math Scores Below Basic	49%	24%
Math Scores Basic or Above	51%	76%
Reading Scores Below Basic	41%	25%
Reading Scores Basic or Above	59%	75%



Three Thoughts

Cleaning can make an enormous impact toward protecting public health and reducing environmental impacts.

Cleaning is a low cost health intervention strategy.

It's both what you do and how you do it that will lead to success.



Implementation Strategies

- **Build a team**
- **Build top-down and bottom-up support**
- **The benefit of doing “pilots”**
 - **Chicago Public Schools**
 - **Washington State School Partnership**
- **Publicize, publicize, publicize (build support)**

Washington State ALAW & NWAPA



Washington State ALAW & NWAPA



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Washington State ALAW & NWAPA



Chicago Public Schools IL Health Schools Campaign



Chicago Public Schools IL Health Schools Campaign



Chicago Public Schools IL Health Schools Campaign



Chicago Public Schools IL Health Schools Campaign





Top 10 Opportunities

1. **Work from a written plan**

- **ASTM E1971-98**
- **www.ASTM.org**
- **Practice prevention, source control**
- **Team Cleaning**
- **Cooperative Cleaning**
- **Stewardship**
- **Measure, measure, measure**

Top 10 Opportunities

1. Work from a written plan
2. Use entryway systems
 - High quality mats (not all mats are created equally)
 - Inside and out
 - 10 to 12 feet
 - Erect barriers
 - Clean outdoors



Top 10 Opportunities

1. Work from a written plan
2. Use entryway systems
3. **Manage chemical storage areas**
 - **Indicator of organizational controls, planning and training**
 - **Safety**
 - **Security**



Top 10 Opportunities

1. Work from a written plan
2. Use entryway systems
3. Manage chemical storage areas
4. **Use environmentally preferable products**
 - Floor care – zinc-free floor finish
 - Cleaning products – Green Seal GS-37
 - Low VOCs
 - Bio-based
 - Hand soaps – non-antimicrobial
 - Disinfectants/sanitizers
 - Concentrates



Top 10 Opportunities

1. Work from a written plan
2. Use entryway systems
3. Manage chemical storage areas
4. Use environmentally preferable products
5. **Use dispensing equipment**
 - **Reduce consumption 30 to 65%**
 - **Reduce costs**



Top 10 Opportunities



written plan
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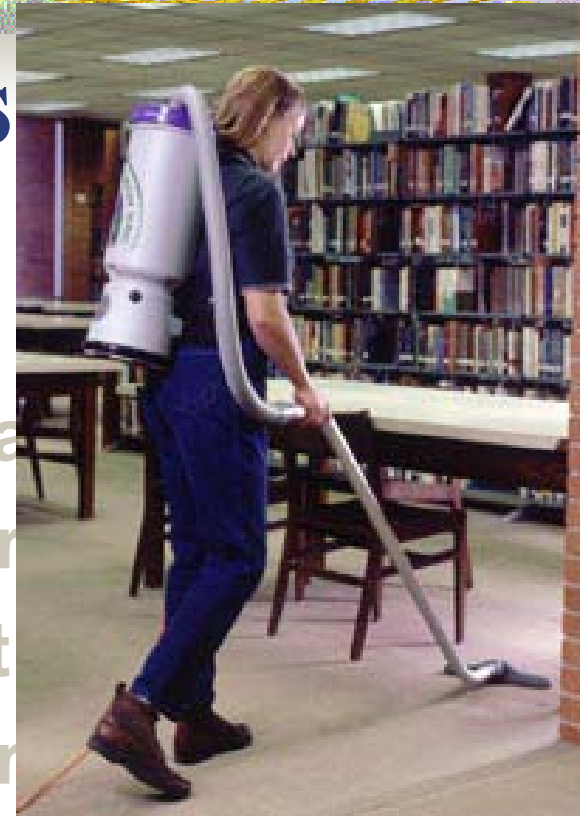


6. Use environmentally preferable supplies

- EPA's Comprehensive Procurement Guidelines
- Toilet paper, paper towels, plastic liners
- Recycled content & chlorine-free bleaching
- Recycled content plastic bags and disposables
- Non-chemical tools – micro-fiber clothes

Top 10 Opportunities

1. Work from a written plan
 2. Use entryway systems
 3. Manage chemical storage and use
 4. Use environmentally preferred products
 5. Use dispensing equipment
 6. Use environmentally preferred products
 7. **Use quality cleaning equipment**
 - **Filters on floor equipment**
 - **CRI Green Label Vacuums**
 - **Filtration, Suction, Airflow, Durability & Ergonomics**
- Carpet extractors that get carpets dry**



Top 10 Opportunities

1. Work from a written plan
2. Use entryway system
3. Manage chemicals
4. Use environmental products
5. Use dispensing equipment
6. Use environmental equipment
7. Use quality equipment
8. **Ventilate during and after cleaning**



Top 10 Opportunities


1. Work from a written plan
2. Use entryway systems
3. Manage chemical storage
4. Use environmentally preferable products
5. Use dispensing equipment
6. Use environmentally preferable supplies
7. Use quality equipment
8. Ventilate during and after cleaning
9. **Practice Integrated Pest Management**



Top 10 Opportunities

1. Work from a written plan
2. Use entryway systems
3. Manage chemicals properly
4. Use environmentally friendly products
5. Use dispensing systems
6. Use environmentally friendly equipment
7. Use quality equipment
8. Ventilate during and after cleaning
9. Practice Integrated Pest Management
10. **Practice Stewardship / Shared Responsibility**





“Insanity has been defined as doing the same thing over and over and expecting a different outcome.

Negligence is defined as doing the same thing over and over even though you know it is dangerous, stupid or wrong.

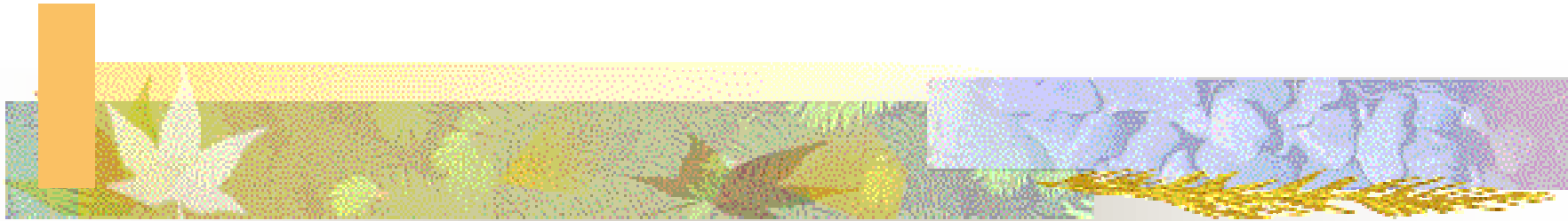
Now that we know, it’s time for a change. Negligence starts tomorrow.”

William McDonough



THE  ASHKIN GROUP, LLC
The Green Cleaning Experts

Making the world
a cleaner, safer, healthier place
... one building at a time.



**Thank
You**

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